

## An Daras Multi Academy Trust

Windmill Hill Academy

## Curriculum Scheme of Learning - Mathematics

| Integrated Curriculum Scheme of Learning -2015 |  |
| :--- | :--- |
| Domain of Learning: | Mathematics |
| National Curriculum Subjects: | Mathematics |
| Subject Leader: | N. Osborne |
| Agreed and Approved: | Sept 2015 |
| Leader In Year Review Dates: | Sept 2016 |
| Related Documents and Guidance: | National Curriculum 14 |
|  | WHA Year Group Non-Negotiable 14 |
|  | WHA Mathematics Policy 15 |
|  | WHA KS1 Mathematics Calculation Policy |
|  | WHA LKS1 Mathematics Calculation Policy |
|  | WHA HKS2 Mathematics Calculation Policy |
|  | WHA Mathematics Curriculum Statement 15 |
|  | WHA Curriculum Policy 15 |

## Windmill Hill Academy

Maths Scheme of Learning - 2015

## Curriculum

Statement

## Mathematics at Windmill Hill Academy 2015/16

We teach our children a rich and progressive curriculum. We believe that Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. In our school we want to help children to understand and appreciate the pattern in both number and space in their everyday lives in and out of school. We encourage the children to develop these key and fundamental skills through their growing knowledge and understanding of the world.

The National Curriculum for primary mathematics has three aims that are at the heart of how we interpret the content of the curriculum.

- Conceptual understanding:

In developing children's skills through enhancing their factual, conceptual and procedural knowledge, we allow them to deepen their mathematical understanding and be able to apply what they know to help them to solve problems.

- Mathematical reasoning:

The progression and development of mental calculations and efficiency in strategies will provide children with the skills which will allow them to communicate and present their findings effectively using appropriate mathematical language.

- Problem solving:

At Windmill Hill Academy, Mathematics is integral to all aspects of life and it is with this in mind that we ensure that children develop selfconfidence in their ability to approach a range of mathematical problems.

By providing opportunities to apply their mathematical skills in different contexts and across a range of subject areas, children will be able to work systematically to organise information, find patterns and ultimately solutions through independent and collaborative learning.

Teaching of Mathematics follows the National Curriculum and reflects changes introduced in 2014 (for 2014-2015 Years 2 and 6 will largely continue to follow the previous curriculum as outlined by government policy and move towards the new curriculum in the summer term) for Key Stages 1 and 2 and the Curriculum for EYFS.

## Assessment

- In the EYFS, children's achievements are on-going and are assessed against the Early Learning Goals.
- Levels were previously being used to assess children in KS1 and KS2. However, the school is now working towards making judgements
about the children's numeracy in relation to age related expectations as set out in the new curriculum.
- Assessment for learning is well established throughout the school and the use of questioning, observation and marking will continue to be key parts of formative assessment. KS2 pupils will also complete termly formative assessment papers.
- Statutory assessments take place at the end of Year 2 and Year 6.


## Monitoring

Maths is led by N. Osborne. The subject leader will update local governors on priorities and progress in maths regularly through the Head of School Report each term.

| Year Group | Aut 1 | Aut 2 | Spr 1 | Spr 2 | Sum 1 | Sum 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. |
| A. Academy Aims Link |  |  |  |  |  |  |
| B. Number - Number and Place Value <br> National Curriculum p102 | *Count to and across 100, forwards \& backwards, beginning with 0 or 1 , or from any given number *Count, read and write numbers to 100 in numerals <br> *Count in multiples of twos, fives and tens *Identify and represent numbers using concrete objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least <br> *Read and write numbers from 1 to 20 in digits and words. | *Count to and across 100, forwards \& backwards, beginning with 0 or 1 , or from any given number *Count, read and write numbers to 100 in numerals *Count in multiples of twos, fives and tens *Given a number, identify one more and one less *Identify and represent numbers using concrete objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least | *Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens <br> *Given a number, identify one more and one less *Identify and represent numbers using concrete objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least | *Count, read and write numbers to 100 in numerals *Count in multiples of twos, fives and tens | *Count, read and write numbers to 100 in numerals *Count in multiples of twos, fives and tens *Identify and represent numbers using concrete objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least | *Count to and across 100, forwards \& backwards, beginning with 0 or 1 , or from any given number |


| C. Number - Addition and Subtraction <br> National Curriculum p103 | *Read, write and interpret mathematical statements involving addition (+), <br> subtraction (-) equals (=) signs <br> *Represent and use number bonds and related subtraction facts within 20 *Add and subtract 1-digit \& 2-digit numbers to 20, including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems | *Read, write and interpret mathematical statements involving addition (+), subtraction (-) equals (=) signs <br> *Represent and use number bonds and related subtraction facts within 20 *Add and subtract 1-digit \& 2-digit numbers to 20, including zero | *Read, write and interpret mathematical statements involving addition (+), <br> subtraction (-) equals (=) signs <br> *Represent and use number bonds and related subtraction facts within 20 <br> *Add and subtract 1-digit <br> \& 2-digit numbers to 20, including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems | *Read, write and interpret mathematical statements involving addition (+), <br> subtraction (-) equals (=) signs <br> *Represent and use number bonds and related subtraction facts within 20 *Add and subtract 1-digit \& 2-digit numbers to 20, including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems | *Represent and use number bonds and related subtraction facts within 20 *Add and subtract 1-digit \& 2-digit numbers to 20, including zero | *Represent and use number bonds and related subtraction facts within 20 <br>  <br> 2-digit numbers to 20, including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D. Number - <br> Multiplication and Division <br> National Curriculum p104 |  | *Solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations \& arrays with teacher support |  |  | *Solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations \& arrays | *Solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations \& arrays |
| E. Number - Fractions <br> National Curriculum p104 | *Recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity <br> *Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity |  |  |  | *Recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity <br> *Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | *Recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity <br> *Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity |
| F. Measurement <br> National Curriculum p105 | *Compare, describe and solve practical problems for lengths and heights <br> *Measure and begin to record the following: lengths and heights <br> *Recognise and know the value of different denominations of coins and notes <br> *Sequence events in chronological order using language, e.g. morning, | *Recognise \& use language relating to dates, incl. days of the week, weeks, months/years *Compare, describe and solve practical problems for lengths and heights | *Compare, describe and solve practical problems for mass/weight <br> *Measure and begin to record the following: mass/weight <br> *Measure and begin to record the following: lengths and heights <br> *Recognise and know the value of different denominations of coins and notes | *Compare, describe and solve practical problems for lengths and heights <br> *Compare, describe and solve practical problems for capacity and volume <br> * Measure and begin to record the following: lengths and heights *Measure and begin to record the following: capacity and volume *Recognise and know the | *Tell the time to the hour/ half past and draw hands on a clock face to show these times | *Compare, describe and solve practical problems for time <br> *Measure and begin to record the following: time (hours, minutes, seconds) <br> *Sequence events in chronological order using language, e.g. morning, afternoon... <br> Use the language day, week, month, year <br> *Recognise \& use language |


|  | afternoon... <br> *Use the language day, week, month, year *Time to the hour |  | *Tell the time to the hour/ half past and draw hands on a clock face to show these times | value of different denominations of coins and notes |  | relating to dates, incl. days of the week, weeks, months/years *Tell the time to the hour/ half past and draw hands on a clock face to show these times |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G. Geometry - <br> Properties of Shape/ <br> Position and Direction <br> National Curriculum p106 | *Recognise and name common 2-D and 3-D shapes, including 2-D shapes (E.g. circles, rectangles, triangles) | *Recognise and name common 2-D and 3-D shapes, including 2-D shapes (E.g. circles, rectangles, triangles) |  |  | *Recognise and name common 2-D and 3-D shapes, including 3-D shapes (E.g. spheres, cuboids, pyramids) | *Recognise and name common 2-D and 3-D shapes, including 3-D shapes (E.g. spheres, cuboids, pyramids) *Describe position, direction/movement whole, half, quarter and three-quarter turns. |
| H. Cross Curricular Links | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships E-safety. <br> Using mathematical language of forwards, backwards, Left \& right | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships E-safety Science - Given opportunities to apply maths for counting and measuring. | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Science - Given opportunities to apply maths for counting and measuring. | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Science - Given opportunities to apply maths for counting and measuring. | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Science - Given opportunities to apply maths for counting and measuring. | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Science - Given opportunities to apply maths for counting and measuring. |
| I. Assessment Pathways | ASFL embedded into everyday practice Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment 2/6 | ASFL embedded into everyday practice Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment 2/6 | ASFL embedded into everyday practice Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment 2/6 | ASFL embedded into everyday practice Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment 2/6 | ASFL embedded into everyday practice Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment 2/6 | ASFL embedded into everyday practice Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment 2/6 |



|  | to, more than, less than (fewer), most, least *Compare and order numbers from 0 up to 100; use <, > and = signs |  |  |  | to, more than, less than (fewer), most, least |  |
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| C. Number - Addition and Subtraction <br> National curriculum p108 | *Read, write and interpret mathematical statements involving addition (+), <br> subtraction (-) equals (=) signs <br> *Recall and use number bonds and related subtraction facts within 20 <br>  <br> 2-digit numbers to 20, <br> including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems | *Read, write and interpret mathematical statements involving addition (+), subtraction (-) equals (=) signs <br> *Recall and use number bonds and related subtraction facts within 20 ${ }^{*}$ Add and subtract 1-digit \& 2-digit numbers to 20 , including zero | *Read, write and interpret mathematical statements involving addition (+), <br> subtraction (-) equals (=) signs <br> *Recall and use number bonds and related subtraction facts within 20 <br> ${ }^{*}$ Add and subtract 1-digit <br> \& 2-digit numbers to 20 , including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems | *Read, write and interpret mathematical statements involving addition (+), <br> subtraction (-) equals (=) signs <br> *Recall and use number bonds and related subtraction facts within 20 *Add and subtract 1-digit \& 2-digit numbers to 20, including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems | *Represent and use number bonds and related subtraction facts within 20 <br> *Add and subtract 1-digit <br> \& 2-digit numbers to 20, including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems | *Represent and use number bonds and related subtraction facts within 20 <br> *Add and subtract 1-digit <br> \& 2-digit numbers to 20, including zero <br> *Solve one-step problems that involve addition and subtraction, using concrete objects \& pictorial representations and missing problems |
| D. Number - <br> Multiplication and Division <br> National Curriculum p109 | *Recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers *Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(\times)$, division ( $\div$ ) and equals (=) signs <br> *Solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations \& arrays with teacher support | *Recall and use multiplication and divisions facts for the 2,5 and 10 multiplication tables, including recognising odd and even *Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(\times)$, division ( $\div$ ) and equals (=) signs | *Recall and use multiplication and divisions facts for the 2,5 and 10 multiplication tables, including recognising odd and even *Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(\times)$, division ( $\div$ ) and equals (=) signs <br> *Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot | *Recall and use multiplication and divisions facts for the $\mathbf{2 , 5}$ and 10 multiplication tables, including recognising odd and even *Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(\times)$, division ( $\div$ ) and equals (=) signs <br> *Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot | *Recall and use multiplication and divisions facts for the $\mathbf{2 , 5}$ and 10 multiplication tables, including recognising odd and even *Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(\times)$, division ( $\div$ ) and equals (=) signs <br> *Solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations \& arrays with teacher support | *Recall and use multiplication and divisions facts for the 2,5 and 10 multiplication tables, including recognising odd and even <br> * Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication $(\times)$, division ( $\div$ ) and equals (=) signs <br> *Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot <br> *Solve one-step problems involving multiplication and division, calculating the answer using concrete |


|  |  |  |  |  |  | objects, pictorial representations \& arrays with teacher support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E. Number - Fractions <br> National Curriculum p109 | *Recognise, find, name and write fractions $1 / 3$, $1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity *Write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ | *Recognise, find, name and write fractions $1 / 3$, $1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity *Write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ | *Recognise, find, name and write fractions $1 / 3$, $1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity *Write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ |  | *Recognise, find, name and write fractions $1 / 3$, $1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity *Write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ | *Recognise, find, name and write fractions $1 / 3$, $1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity *Write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ |
| F. Measurement <br> National Curriculum p110 | LENGTH <br> *Choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass (kg/g); temperature ( ${ }^{\circ} \mathrm{C}$ ); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels <br> *Compare and order lengths, mass, volume/capacity and record the results using >, < and $=$ <br> Money <br> *Recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value *Find different combinations of coins that equal the same amounts of money <br> *Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including | MONEY <br> *Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | WEIGHT <br> *Choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass (kg/g); temperature ( ${ }^{\circ} \mathrm{C}$ ); capacity (litres $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels <br> *Compare and order lengths, mass, volume/capacity and record the results using >, < and = <br> Money <br> *Solve simple problems in <br> a practical context <br> involving addition and subtraction of money of the same unit, including giving change <br> Time <br> *Compare and sequence intervals of time | CAPACITY <br> *Choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass (kg/g); temperature ( ${ }^{\circ} \mathrm{C}$ ); capacity (litres $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels <br> *Compare and order lengths, mass, volume/capacity and record the results using >, < and = <br> Money <br> *Recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value *Find different combinations of coins that equal the same amounts of money <br> *Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including | TIME <br> *Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times (time to $1 / 4 \mathrm{hr}$, then 5 mins) <br> *Know the number of minutes in an hour and the number of hours in a day | MONEY <br> *Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times (time to1/4 hr, then 5 mins <br> *Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times (time to1/4 hr, then 5 mins <br> *Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change <br> Time <br> *Compare and sequence intervals of time |


|  | giving change <br> Time <br> *Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times (time to $1 / 2$ and $1 / 4$ hour) |  |  | giving change |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G. Geometry Properties of Shape <br> National Curriculum p111 |  | *Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line <br> *Compare and sort common 2-D and 3-D shapes and everyday objects |  |  | *Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces <br> *Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] <br> *Compare and sort common 2-D and 3-D shapes and everyday objects |  |
| H. Geometry - Position and Direction <br> National Curriculum p112 | *Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and threequarter turns (clockwise and anti-clockwise). <br> *Order and arrange combinations of mathematical objects in patterns and sequences (ongoing throughout curriculum) | *Order and arrange combinations of mathematical objects in patterns and sequences (ongoing throughout curriculum) | *Order and arrange combinations of mathematical objects in patterns and sequences (ongoing throughout curriculum) | *Order and arrange combinations of mathematical objects in patterns and sequences (ongoing throughout curriculum) | *Order and arrange combinations of mathematical objects in patterns and sequences (ongoing throughout curriculum) | *Order and arrange combinations of mathematical objects in patterns and sequences (ongoing throughout curriculum) |
| I. Statistics <br> National Curriculum p112 |  | *Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity <br> *Ask and answer simple | *Interpret and construct simple pictograms, tally charts, block diagrams and simple tables | *Interpret and construct simple pictograms, tally charts, block diagrams and simple tables <br> *Ask and answer simple questions by counting the |  | *Interpret and construct simple pictograms, tally charts, block diagrams and simple tables <br> *Ask and answer simple questions by counting the |


|  |  | questions by counting the number of objects in each category and sorting the categories by quantity |  | number of objects in each category and sorting the categories by quantity |  | number of objects in each category and sorting the categories by quantity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J. Cross Curricular Links | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Geometry and position for creating algorithms SMSC/Role play (Trains) Money and time. <br> D.T - Measurement (making transport using mechanisms). | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons *Developing literacy through discussions | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Science - Plants (measurement). | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Data logging in relation to plants (statistics) <br> Science: - Plants (measurement). <br> D.T - Cooking (measurement - mass). | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Living things (statistics) <br> Geography - Compass points. <br> PE - Athletics (measurement). | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Living things (statistics) <br> Geography - Compass points. <br> PE - Athletics (measurement). |
| K. Assessment Pathways | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 |


| Year Group | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| 38 A. Academy Aims Link | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. |
| B. Number - Number and Place Value <br> National Curriculum p114 | *Count from 0 in multiples of $4,8,50$ and 100; find 10 or 100 more or less than a given number <br> *Recognise the place value of each digit in a 3 digit number (100s, 10s, 1s) <br> *Compare and order numbers up to 1000 <br> *Identify, represent and estimate numbers using different representations *Read and write numbers up to 1000 in numerals and in words *Solve number problems and practical problems | *Count from 0 in multiples of $4,8,50$ and 100 ; find 10 or 100 more or less than a given number | *Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) *Compare and order numbers up to 1000 <br> *Identify, represent and estimate numbers using different representations *Read and write numbers up to 1000 in numerals and in words | *Count from 0 in multiples of $4,8,50$ and 100 ; find 10 or 100 more or less than a given number <br> *Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) | *Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number *Compare and order numbers up to 1000 *Identify, represent and estimate numbers using different representations *Read and write numbers up to 1000 in numerals and in words |  |


|  | involving these ideas |  |  |  |  |  |
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| C. Number - Addition and Subtraction <br> National curriculum p115 | *Add and subtract numbers mentally, including a 3-digit number and ones; a 3digit number and tens and a 3-digit number and hundreds <br> *Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction <br> *Estimate the answer to a calculation and use inverse operations to check answers (light) *Solve problems that involve all of the above problem solving | *Add and subtract numbers mentally, including a 3-digit number and ones; a 3-digit number and tens and a 3-digit number and hundreds <br> *Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction *Estimate the answer to a calculation and use inverse operations to check answers (light) <br> *Solve problems that involve all of the above -( light) | *Add and subtract numbers mentally, including a 3-digit number and ones; a 3-digit number and tens and a 3-digit number and hundreds <br> *Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction *Add and subtract nos with up to 3 digits, using formal written methods of columnar addition and subtraction <br> *Estimate the answer to a calculation and use inverse operations to check answers (light) <br> *Solve problems that involve all of the above investigation | *Add and subtract numbers mentally, including a 3-digit number and ones; a 3-digit number and tens and a 3-digit number and hundreds <br> *Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction <br> *Add and subtract nos with up to 3 digits, using formal written methods of columnar addition and subtraction <br> *Estimate the answer to a calculation and use inverse operations to check answers (light) <br> *Solve problems that involve all of the above word problems | *Add and subtract numbers mentally, including a 3-digit number and ones; a 3-digit number and tens and a 3-digit number and hundreds <br> *Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction <br> *Add and subtract nos with up to 3 digits, using formal written methods of columnar addition and subtraction <br> *Estimate the answer to a calculation and use inverse operations to check answers <br> *Solve problems that involve all of the above word problems | *Add and subtract numbers mentally, including a 3-digit number and ones; a 3-digit number and tens and a 3-digit number and hundreds <br> *Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction *Add and subtract nos with up to 3 digits, using formal written methods of columnar addition and subtraction <br> *Estimate the answer to a calculation and use inverse operations to check answers <br> *Solve problems that involve all of the above |
| D. Number - <br> Multiplication and Division <br> National Curriculum p115 | *Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables <br> *Write and calculate mathematical statements for $\times$ and $\div$ using the multiplication tables that they know, including for 2digit nos times 1-digit nos, using mental and progressing to formal written methods *Solve problems, including missing number problems, involving $\times$ and $\div$, including positive integer scaling problems and correspondence problems in which $n$ objects are connected to | *Write and calculate mathematical statements for $\times$ and $\div$ using the multiplication tables that they know, including for 2digit nos times 1-digit nos, using mental and progressing to formal written methods <br> *Solve problems, including missing number problems, involving $\times$ and $\div$, including positive integer scaling problems and correspondence problems in which $n$ objects are connected to mobjects. | *Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables *Write and calculate mathematical statements for $\times$ and $\div$ using the multiplication tables that they know, including for 2digit nos times 1-digit nos, using mental and progressing to formal written methods <br> *Solve problems, including missing number problems, involving $\times$ and $\div$, including positive integer scaling problems and correspondence problems in which $n$ objects are connected to m objects. | *Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables *Write and calculate mathematical statements for $\times$ and $\div u s i n g$ the multiplication tables that they know, including for 2digit nos times 1-digit nos, using mental and progressing to formal written methods <br> *Solve problems, including missing number problems, involving $\times$ and $\div$, including positive integer scaling problems and correspondence problems in which $n$ objects are connected to m objects. | *Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables *Write and calculate mathematical statements for $\times$ and $\div$ using the multiplication tables that they know, including for 2digit nos times 1-digit nos, using mental and progressing to formal written methods <br> *Solve problems, including missing number problems, involving $\times$ and $\div$, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. | *Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables *Write and calculate mathematical statements for $\times$ and $\div$ using the multiplication tables that they know, including for 2digit nos times 1-digit nos, using mental and progressing to formal written methods <br> *Solve problems, including missing number problems, involving $\times$ and $\div$, including positive integer scaling problems and correspondence problems in which $n$ objects are connected to m objects. |


|  | m objects. |  |  |  |  |  |
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| E. Number - Fractions <br> National Curriculum p116 |  | *Recognise, find \& write fractions of a discrete set of objects: unit fractions \& non-unit fractions with small denominators | *Recognise, find \& write fractions of a discrete set of objects: unit fractions \& non-unit fractions with small denominators <br> *Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators <br> *Recognise and show, using diagrams, equivalent fractions with small denominators <br> *Add and subtract fractions with the same denominator within one whole [for example, 5/7 + $1 / 7=6 / 7$ ] <br> *Compare and order unit fractions, and fractions with the same denominators | *Recognise, find \& write fractions of a discrete set of objects: unit fractions \& non-unit fractions with small denominators *Solve problems that involve all of the above (fraction) |  | *Count up \& down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit nos or quantities by 10 *Recognise, find \& write fractions of a discrete set of objects: unit fractions \& non-unit fractions with small denominators <br> *Recognise and show, using diagrams, equivalent fractions with small denominators <br> *Add and subtract fractions with the same denominator within one whole [for example, 5/7 + $1 / 7=6 / 7$ ] <br> *Solve problems that involve all of the above (fractions) |
| F. Measurement <br> National Curriculum p117 | *Add and subtract amounts of money to give change, using both f and $p$ in practical contexts | *Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight <br> *Know the number of seconds in a minute and the number of days in each month, year and leap year *Compare durations of events [for example to calculate the time taken by particular events or tasks]. | *Measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (1/ml) <br> *Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts *Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks | *Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m/p.m, morning, afternoon, noon and midnight <br> *Know the number of seconds in a minute and the number of days in each month, year and leap year *Compare durations of events [for example to calculate the time taken by particular events or tasks]. | *Measure, compare, add and subtract: lengths $(\mathrm{m} / \mathrm{cm} / \mathrm{mm})$; mass (kg/g); volume/capacity ( $1 / \mathrm{ml}$ ) <br> *Measure the perimeter of simple 2-D shapes <br> *Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts *Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks <br> *Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such | ${ }^{*}$ Add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts *Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks <br> *Know the number of seconds in a minute and the number of days in each month, year and leap year |


|  |  |  |  |  | as o'clock, a.m./p.m., morning, afternoon, noon and midnight <br> *Compare durations of events [for example to calculate the time taken by particular events or tasks]. |  |
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| G. Geometry - Position and Direction <br> National Curriculum p118 | *Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them <br> *Recognise angles as a property of shape or a description of a turn *Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle (in 2d shapes) |  |  | *Recognise angles as a property of shape or a description of a turn *Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle |  | *Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them <br> *Recognise angles as a property of shape or a description of a turn *Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle <br> *Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. |
| H. Statistics <br> National Curriculum p119 |  | *Interpret and present data using bar charts, pictograms and tables *Solve one-step and twostep questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. | *Interpret and present data using bar charts, pictograms and tables *Solve one-step and twostep questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. |  |  |  |


| I. Cross Curricular Links | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Science - Gathering data and presenting in a bar graph. <br> *Opportunities to measure length during forces experiment. <br> PE - Games - devise and explain scoring systems. <br> *Fractions: <br> halves/quarters/thirds of a pitch/court/game | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> D.T- Weighing ingredients, using ratios to calculate quantities of ingredients PE - Swimming - record times taken to complete width/length of pool. How much can you improve? Work out comparisons against previous best and recognise improvement over time: can individual children recognise improvement over time? <br> *During gymnastics: Investigating patterns: when jumping, jump and curl, jump and stretch, etc Developing sequences: $1^{\text {st }}$ do a jump, $2^{\text {nd }}$ do a roll and $3^{\text {rd }}$ do a twist, repeat the pattern five times. | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> PE - Dance - sequencing, including pace and speed: first start your movement slowly, then make your movement faster, next make your movement very fast and finally slow your movement down, repeat the sequence three times | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> PE - Outdoor <br> Adventurous- estimating distances apart and where it is safe to jump, move without interfering with each other <br> D.T - Accurate measuring and drawing lines in cm and mm . | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships E-safety <br> History /Art - Researching and creating Roman mosaics <br> PE - Striking and Fielding devise and explain scoring systems. | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Geography - Collecting information on how our location has changed over time. Recording the data in order to analyse. <br> PE- Work out comparisons against previous best and recognise improvement over time: can individual children recognise improvement over time? <br> Can they identify which is the furthest throw, which is the fastest run over 50 metres? <br> Work out combined distances/times for group: which group has thrown the furthest? Which group the quickest combined total for a run over a given distance? <br> Work out speeds using simple formulae |
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| J. Assessment Pathways | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. |




|  |  |  |  |  | the concept of zero and place value |  |
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| C. Number - Addition and Subtraction <br> National Curriculum p121 | *Add and subtract nos with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ( 2 and 3-d) <br> *Estimate and use inverse operations to check answers to a calculation | *Add and subtract nos with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ( 2 and 3-d) <br> *Estimate and use inverse operations to check answers to a calculation *Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why | *Add and subtract nos with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ( 2 and 3-d) <br> *Estimate and use inverse operations to check answers to a calculation *Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why | *Add and subtract nos with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ( 2 and 3-d) <br> *Estimate and use inverse operations to check answers to a calculation | *Add and subtract nos with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ( 2 and 3-d) <br> *Estimate and use inverse operations to check answers to a calculation *Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why | *Add and subtract nos with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate ( 2 and 3-d) <br> *Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why |
| D. Number - <br> Multiplication and Division <br> National Curriculum p121 | *Recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> *Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together three numbers <br> *Recognise and use factor pairs and commutatively in mental calculations *Solve problems involving multiplying \& adding, including using the distributive law to multiply 2 -digit nos by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | *Recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> *Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together three numbers *Multiply 2-digit and 3-digit numbers by a one-digit number using formal written layout <br> *Solve problems involving multiplying \& adding, including using the distributive law to multiply 2-digit nos by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to $m$ objects. | *Recall multiplication and division facts for multiplication tables up to $12 \times 12$ | *Recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> *Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together three numbers <br> *Recognise and use factor pairs and commutatively in mental calculations <br> *Multiply 2-digit and 3digit numbers by a onedigit number using formal written layout <br> *Solve problems involving multiplying \& adding, including using the distributive law to multiply 2-digit nos by 1 digit, integer scaling problems and harder correspondence problems such as $n$ objects are connected to $m$ objects. | *Recall multiplication and division facts for multiplication tables up to $12 \times 12$ | *Recall multiplication and division facts for multiplication tables up to $12 \times 12$ <br> *Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together three numbers <br> *Recognise and use factor pairs and commutatively in mental calculations <br> *Multiply 2-digit and 3digit numbers by a onedigit number using formal written layout <br> *Solve problems involving multiplying \& adding, including using the distributive law to multiply 2-digit nos by 1 digit, integer scaling problems and harder correspondence problems such as $n$ objects are connected to $m$ objects. |



| G. Geometry - Position and Direction <br> National Curriculum p124 | *Compare/classify geometric shapes, incl. quadrilaterals and triangles, based on their properties/ sizes *Identify lines of symmetry in 2-D shapes presented in different orientations |  |  | *Describe positions on a 2- <br> D grid as coordinates in the first quadrant <br> *Describe movements between positions as translations of a given unit to the left/right and up/down | *Describe positions on a 2- <br> D grid as coordinates in the first quadrant <br> *Plot specified points and draw sides to complete a given polygon | *Compare/classify <br> geometric shapes, incl. <br> quadrilaterals and triangles, based on their properties/ sizes <br> *Identify acute and obtuse angles and compare and order angles up to two right angles by size <br> *Identify lines of symmetry in 2-D shapes presented in different orientations <br> *Complete a simple symmetric figure with respect to a specific line of symmetry |
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| H. Statistics <br> National Curriculum p125 |  | *Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs <br> *Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | *Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs <br> *Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs |  |  | *Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs |
| I. Cross Curricular Links | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships E-safety <br> *Using Scratch and algorithms to create a maths game | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships E-safety <br> D.T- Making accurate measurements (length - mm/cm) <br> *Exploring 2D/3D shapes | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Science - Animal and habitat decision trees, Carroll and Venn diagrams Geography - Analysing and | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Science - Measuring heart rates <br> D.T - Weighing / measuring mass and reading scales | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> History - Using timelines, chronology <br> Geography - Comparing, ordering and rounding | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> PE - Athletics - Measuring and calculating length / distances, converting between units |


|  | (multiplication tables) Science - Measuring / sound levels | and nets Music / PE (Dance) Creating repeating patterns and sequences | interpreting real life facts and figures linked to data on different countries Music / IT - Creating repeating patterns | $(\mathrm{g} / \mathrm{kg})$ when cooking, using ratio and proportion to adapt recipes | numbers (including river lengths - km) PE (OAA) - Problem solving, direction and coordinates | $(1 \mathrm{~m} 57 \mathrm{~cm}=1.57 \mathrm{~m}=$ 157 cm ) by multiplying dividing by 10/100 \& measuring and ordering athletics times (minutes / seconds) <br> Science / Geog / IT Collecting weather data and creating / interpreting graphs (temperature and rainfall (mm)) |
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| J. Assessment Pathways | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly - formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 |


| Year Group | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| A. Academy Aims Li | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher |
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|  |  | WHA: | WHA: | WHA: | WHA: | WHA: |
|  |  | *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. |
| B. Number - Number and Place Value | *Read, write, order and compare numbers to at least $1,000,000$ and | *Round any number up to <br> $1,000,000$ to the nearest <br> 10, 100, 1000, 10,000 and | *Read, write, order and compare numbers to at least $1,000,000$ and | *Read, write, order and compare numbers to at least $1,000,000$ and | *Read, write, order and compare numbers to at least 1,000,000 and |  |
| National Curriculum | determine the value of each digit | 100,000 | determine the value of each digit | determine the value of each digit | determine the value of each digit |  |
|  | *Count forwards or backwards in steps of |  | *Interpret negative nos in context, count forwards \& | *Round any number up to $1,000,000$ to the nearest | *Count forwards or backwards in steps of |  |
|  | powers of 10 for any |  | backwards with positive \& | 10, 100, 1000, 10,000 and | powers of 10 for any given |  |
|  | given number up to |  | negative whole nos, | 100,000 | number up to 1,000,000 |  |
|  | 1,000,000 |  | including through 0 <br> *Round any number up to |  | *Interpret negative nos in context, count forwards \& |  |
|  |  |  | 1,000,000 to the nearest |  | backwards with positive \& |  |
|  |  |  | 10, 100, 1000, 10,000 and |  | negative whole nos, |  |
|  |  |  | 100,000 |  | including through 0 |  |
|  |  |  | practical problems that |  | $1,000,000$ to the nearest |  |
|  |  |  | involve all of the above |  | 10, 100, 1000, 10,000 and |  |
|  |  |  |  |  | 100,000 |  |


|  |  |  |  |  | practical problems that involve all of the above <br> *Read Roman numerals to 1000 (M) \& recognise years written in Roman numerals. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C. Number - Addition and Subtraction <br> National Curriculum p103 | *Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <br> *Add and subtract numbers mentally with increasingly large numbers <br> *Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy | *Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <br> *Add and subtract numbers mentally with increasingly large numbers *Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers | *Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <br> *Add and subtract numbers mentally with increasingly large numbers *Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy <br> *Solve addition \& subtraction multi-step problems in contexts, deciding which operations \& methods to use and why. | *Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <br> *Add and subtract numbers mentally with increasingly large numbers *Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy | *Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <br> *Add and subtract numbers mentally with increasingly large numbers *Solve addition \& subtraction multi-step problems in contexts, deciding which operations \& methods to use and why. | *Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) <br> *Add and subtract numbers mentally with increasingly large numbers *Solve addition \& subtraction multi-step problems in contexts, deciding which operations \& methods to use and why. |
| D. Number - <br> Multiplication and Division <br> National Curriculum p104 | *Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers *Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2digit numbers <br> *Multiply and divide numbers mentally drawing upon known facts *Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | *Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers *Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2digit numbers <br> *Multiply and divide numbers mentally drawing upon known facts <br> *Establish whether a number up to 100 is prime and recall prime numbers up to 19 <br> *Divide numbers up to 4 digits by a one-digit number using the formal | *Identify multiples and factors, including finding all factor pairs of a number, and common factors of $\mathbf{2}$ numbers *Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2digit numbers <br> *Multiply and divide numbers mentally drawing upon known facts <br> *Solve problems involving multiplication and division including using their knowledge of factors and multiples, <br> *Multiply and divide whole numbers and those | *Know and use the vocabulary of prime numbers, prime factors \& composite (non-prime) numbers <br> *Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2digit numbers <br> *Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context <br> *Multiply and divide whole numbers and those involving decimals by 10 , | *Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers *Solve problems involving ,,$+- \times$ and $\div$, and a combination of these, including understanding the meaning of the equals sign <br> *Multiply and divide numbers mentally drawing upon known facts <br> *Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | *Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2digit numbers <br> *Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context <br> *Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. |


|  | *Multiply and divide whole numbers and those involving decimals by 10 , 100 and 1000 <br> *Solve problems involving ,,$+- \times$ and $\div$, and a combination of these, including understanding the meaning of the equals sign | written method of short division and interpret remainders appropriately for the context <br> *Solve problems involving ,,$+- \times$ and $\div$, and a combination of these, including understanding the meaning of the equals sign | involving decimals by 10 , 100 and 1000 <br> *Solve problems involving ,,$+- \times$ and $\div$, and a combination of these, including understanding the meaning of the equals sign <br> *Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. | 100 and 1000 <br> *Solve problems involving ,,$+- \times$ and $\div$, and a combination of these, including understanding the meaning of the equals sign | *Multiply and divide whole numbers and those involving decimals by 10 , 100 and 1000 <br> *Recognise and use square numbers and cube numbers, and the notation for squared ( ${ }^{2}$ ) and cubed $l^{3}$ <br> *Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E. Number - Fractions <br> National Curriculum p130 | *Compare and order fractions whose denominators are all multiples of the same number <br> *Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <br> *Read and write decimal numbers as fractions [for example, $0.71=71 / 100]$ | *Compare and order fractions whose denominators are all multiples of the same number <br> *Recognise mixed numbers and improper fractions and convert from one form to the other \& write mathematical statements > 1 as a mixed number [for example, ${ }^{2} / 5+{ }^{4} / 5=6 / 5=$ $\left.1^{1} / 5\right]$ <br> *Add and subtract fractions with the same denominator and denominators that are multiples of the same number <br> *Read and write decimal numbers as fractions [for example, $0.71=71 / 100]$ | *Compare and order fractions whose denominators are all multiples of the same number <br> *Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <br> *Read and write decimal numbers as fractions [for example, $0.71=71 / 100$ ] *Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place | *Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams *Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place | *Compare and order fractions whose denominators are all multiples of the same number <br> *Recognise mixed numbers and improper fractions and convert from one form to the other \& write mathematical statements > 1 as a mixed number [for example, ${ }^{2} / 5+$ $4 / 5=6 / 5=1^{1} / 5$ ] <br> *Add and subtract fractions with the same denominator and denominators that are multiples of the same number <br> *Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents <br> *Read, write, order and compare numbers with up to 3 decimal places *Solve problems involving number up to 3 decimal places | *Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams *Read, write, order and compare numbers with up to 3 decimal places <br> *Solve problems involving number up to 3 decimal places <br> *Recognise the per cent symbol (\%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal <br> *Solve problems which require knowing percentage and decimal equivalents of $1 / 2,1 / 4,1 / 5$, ${ }^{2} / 5,4 / 5$ and those fractions with a denominator of a multiple of 10 or 25 . |


| F. Measurement <br> National Curriculum p105 | *Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. | *Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) <br> *Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints <br> *Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. | *Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints <br> *Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. | *Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres *Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes Estimate volume [for example, using 1 cm 3 blocks to build cuboids (including cubes)] and capacity [for example, using water] <br> *Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. | *Solve problems involving converting between units of time | *Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) <br> *Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G. Geometry properties of shape <br> National Curriculum p133 | *Identify 3-D shapes, including cubes \& other cuboids, from 2-D representations *Distinguish between regular and irregular polygons based on reasoning about equal sides and angles |  | *Use the properties of rectangles to deduce related facts and find missing lengths and angles |  | *Know angles are measured in degrees: estimate \& compare acute, obtuse and reflex angles *Draw given angles, and measure them in degrees *Identify angles at a point and one whole turn (total $360^{\circ}$, angles at a point on a straight line and 2 1 a turn (total $180^{\circ}$ ), other multiples of $90^{\circ}$ |  |
| H. Geometry - position and direction <br> National Curriculum p133 |  |  | *Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. |  |  |  |
| I. Statistics |  | *Solve comparison, sum and difference problems | *Solve comparison, sum and difference problems |  |  | *Solve comparison, sum and difference problems |


| National Curriculum p134 |  | using information presented in a line graph *Complete, read and interpret information in tables, including timetables | using information presented in a line graph *Complete, read and interpret information in tables, including timetables |  |  | using information presented in a line graph |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J. Cross Curricular Links | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> Computing - We are game developers - using angles and measure to develop game E-safety <br> Science - Earth and Space - planets distance from Sun | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> Computing cryptographers - using prime numbers to code E-safety <br> Science - Biomes interpreting line graphs of temperature <br> D.T - Food - using metric/ imperial measures | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Art - Printing/ collage using tessellation, rotation and reflection to create patterns PE - gym/dance - using rotation of shape to create movement | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships E-safety <br> D.T - materials - using perimeter and area to ensure correct amount of material needed | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships E-safety <br> Topic - Local study - using angles and measure during map reading; using degrees of turn reading a compass | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks <br> *Practising of number skills <br> *Exploring patterns and relationships <br> Computing - We are architects - using units of measure to construct model buildings E-safety |
| K. Assessment Pathways | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly - formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 |


| Year Group | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. <br> *Ensuring that achievement gaps for disadvantaged children are addressed. *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. | ADMAT: <br> *Accelerating and sustaining children's progress towards higher achievement. |
| A. Academy Aims Link |  |  | *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. | *Ensuring that achievement gaps for disadvantaged children are addressed. <br> *Creating an enjoyable and creative curriculum that meets the learning needs for the children. <br> *Providing for children a safe, stimulating, caring but challenging learning environment. <br> WHA: <br> *Create challenge, ensuring children see failure as not a negative but an opportunity to grow and learn. |
| B. Number - Number and Place Value <br> National Curriculum p102 | *Read, write, order and compare numbers up to $10,000,000$ and determine the value of each digit *Solve number and practical problems that involve all of the above | *Round any whole number to a required degree of accuracy | *Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit *Round any whole number to a required degree of accuracy <br> *Use negative numbers in context, and calculate intervals across zero |  | *Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit *Round any whole number to a required degree of accuracy <br> *Use negative numbers in context, and calculate intervals across zero | *Read, write, order and compare numbers up to $10,000,000$ and determine the value of each digit *Solve number and practical problems that involve all of the above |


| C. Number - Addition, Subtraction, Multiplication and Division <br> National Curriculum p103 | *Multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication <br> *Perform mental <br> calculations, including with mixed operations and large numbers <br> *Identify common factors, common multiples and prime numbers <br> *Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why <br> *Solve problems involving addition, subtraction, multiplication and division *Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy | *Multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication <br> *Divide nos up to 4 digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context *Perform mental calculations, including with mixed operations and large numbers <br> *Solve problems involving addition, subtraction, multiplication and division *Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy | *Multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication <br> *Perform mental <br> calculations, including with mixed operations and large numbers <br> *Use their knowledge of the order of operations to carry out calculations involving the four operations *Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy | *Multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication *Divide nos up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context *Divide nos up to 4 digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context | *Multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication *Divide nos up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context *Divide nos up to 4 digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context *Perform mental calculations, including with mixed operations and large numbers <br> *Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why *Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy | *Divide nos up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context *Divide nos up to 4 digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context *Perform mental calculations, including with mixed operations and large numbers *Identify common factors, common multiples and prime numbers <br> *Use their knowledge of the order of operations to carry out calculations involving the four operations <br> *Solve problems involving addition, subtraction, multiplication and division |
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| D. Number -Fractions <br> National Curriculum p136 | *Use common factors to simplify fractions; use common multiples to express fractions in the same denomination *Compare and order fractions, including fractions > 1 <br> *Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, ${ }^{3} / 8$ ] <br> *Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10 , 100 and 1000 giving answers up to 3 decimal places <br> *Solve problems which require answers to be rounded to specified degrees of accuracy | *Use common factors to simplify fractions; use common multiples to express fractions in the same denomination <br> *Compare and order fractions, including fractions > 1 <br> *Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions <br> *Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, ${ }^{3} / 8$ ] <br> *Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10 , 100 and 1000 giving answers up to 3 decimal places <br> *Use written division methods in cases where the answer has up to two decimal places <br> *Solve problems which require answers to be rounded to specified degrees of accuracy <br> *Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts | *Compare and order fractions, including fractions > 1 <br> *Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, ${ }^{3} / 8$ ] *Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10 , 100 and 1000 giving answers up to 3 decimal places *Multiply one-digit numbers with up to two decimal places by whole numbers *Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts | *Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1 / 4 \times 1 / 2=1 / 8$ ] *Divide proper fractions by whole numbers [for example, ${ }^{1} / 3 \div 2=1 / 6$ ] | *Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions <br> *Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1 / 4 \times 1 / 2=1 / 8$ ] *Divide proper fractions by whole numbers [for example, ${ }^{1} / 3 \div 2=1 / 6$ ] <br> *Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\left.{ }^{3} / 8\right]$ <br> *Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10 , 100 and 1000 giving answers up to 3 decimal places <br> *Multiply one-digit numbers with up to two decimal places by whole numbers *Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts |  |
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| E. Ratio and Proportion <br> National Curriculum p138 |  |  | *Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts <br> *Solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360 ] and the use of percentages for comparison | *Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts <br> * Solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360 ] and the use of percentages for comparison *Solve problems involving similar shapes where the scale factor is known or can be found <br> *Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples | *Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts <br> *Solve problems involving the calculation of percentages [for example, of measures, and such as $15 \%$ of 360 ] and the use of percentages for comparison *Solve problems involving similar shapes where the scale factor is known or can be found | *Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F. Algebra <br> National Curriculum p138 |  |  |  | *Use simple formulae <br> *Generate and describe linear number sequences *Express missing number problems algebraically *Find pairs of numbers that satisfy an equation with two unknowns <br> *Enumerate possibilities of combinations of two variables | *Generate and describe linear number sequences | *Use simple formulae <br> *Generate and describe linear number sequences |
| G. Measurement <br> National Curriculum p139 | *Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate | *Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places <br> *Convert between miles and kilometres | *Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate | *Recognise that shapes with the same areas can have different perimeters and vice Versa <br> *Recognise when it is possible to use formulae for area and volume of shapes *Calculate the area of parallelograms and triangles *Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres ( $\mathrm{cm}^{3}$ ) and cubic metres $\left(\mathrm{m}^{3}\right)$, and extending | *Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places <br> *Recognise that shapes with the same areas can have different perimeters and vice Versa <br> *Recognise when it is |  |


|  |  |  |  | to other units [for example, $\mathrm{mm}^{3}$ and $\mathrm{km}^{3}$ ] | possible to use formulae for area and volume of shapes |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H. Geometry Properties of Shape <br> National Curriculum p106 | *Draw 2-D shapes using <br> given dimensions and <br> angles <br> *Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons <br> *Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius <br> *Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles | *Recognise, describe and build simple 3-D shapes, including making nets |  |  | *Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles (revision) | *Draw 2-D shapes using given dimensions and angles |
| I. Geometry - Position and Direction <br> National Curriculum p141 |  |  | *Describe positions on the full coordinate grid (all four quadrants) <br> *Draw and translate simple shapes on the coordinate plane, and reflect them in the axes |  | *Draw and translate simple shapes on the coordinate plane, and reflect them in the axes |  |
| J. Statistics <br> National Curriculum p141 |  | *Interpret and construct pie charts and line graphs and use these to solve problems | *Interpret and construct pie charts and line graphs and use these to solve problems <br> * Calculate and interpret the mean as an average |  | *Interpret and construct pie charts and line graphs and use these to solve problems | *Interpret and construct pie charts and line graphs and use these to solve problems *Calculate and interpret the mean as an average (light) |
| K. Cross Curricular Links | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions Computing - Given opportunities: <br> *Problem solving tasks | English - Spelling key term correctly <br> *Promoting the use of mathematical language during lessons <br> *Developing literacy through discussions <br> Computing - Given opportunities: <br> *problem solving tasks | English - Spelling key term correctly <br> *Promoting the use of mathematical language <br> during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks | English - Spelling key term correctly <br> *Promoting the use of mathematical language <br> during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks | English: spelling key term correctly <br> *Promoting the use of mathematical language <br> during lessons <br> *Developing literacy through discussions <br> Computing - Given <br> opportunities: <br> *Problem solving tasks | English - Spelling key term correctly <br> *Promoting the use of mathematical language <br> during lessons <br> *Developing literacy through discussions <br> Computing - at given opportunities: <br> *Problem solving tasks |


|  | *Practising of number skills <br> *Exploring patterns and relationships <br> *E-safety <br> Computing - Interactive maths games <br> Science - Electricity | *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> DT - Food - using metric/ imperial measures <br> Computing - Interactive maths games | *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Computing - Interactive maths games <br> PE - Rotation and reflection of shapes | *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> DT - Ancient Greek vases symmetry <br> Computing - Interactive maths games | *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> Computing - Interactive maths games <br> SMSC - Money <br> Art - Print symmetrical patterns/reflection/rotation/ tessellation | *Practising of number skills <br> *Exploring patterns and relationships <br> E-safety <br> DT - London structures measure <br> Computing - Interactive maths games <br> PE - Split time/ distance SMSC - Money |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L. Assessment Pathways | ASFL embedded into everyday classroom practice. <br> Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 | ASFL embedded into everyday classroom practice. Elicitation task (at the beginning of a unit) or elicitation from assessment or previous work. <br> Moderation: internal and external <br> Half termly/termly/ yearly formal assessment Statutory assessment at the end of Y 2 and Y 6 |

